

NEW AMERICAN MITES.

BY NATHAN BANKS.

(Plates I and II.)

The following new species are mostly of some economic value, and will be referred to in economic literature, so I herewith present their description.

Tarsotomus erraticus, new species.

Red. Body two and one-half times as long as broad, in front narrowed and rather roundedly pointed; this narrowed front part bears a number of long, stout, erect bristles, a few shorter, more curved ones on the hind border of body. Palpi stout, the thumb apparently three-jointed, tip of palpus with two approximate curved elaws, with crenulated margins, all joints of palpi with stiff, erect bristles. Front legs rather longer than body, third and fourth pairs much longer than body, hind tarsi very slender, all legs with stiff bristles, those on basal joints simple, those on tarsi scabrous or hairy, a pair of long bristles at tip of metatarsi; about twelve to fourteen joints in the tarsi, the basal ones longer than broad.

Length, 1 mm.

From Springer, New Mexico, July 5, on ground (C. N. Ainslie).

Erythræus arvensis, new species.

Red. Body about two and one-fourth times as long as broad, broadly rounded behind; dorsal groove reaching as far back as eyes, and enlarged at each end; one large eye each side, about over coxæ II. Body clothed with short, slightly clavate hairs, all of one kind. Legs with larger simple bristles, but those on the basal joints often curved. Legs shorter than body, first pair about three-fourths the length of the body, patella, tibia, and metatarsus subequal, each longer than femora, and fully three times as long as broad, tarsus about as long as metatarsus, but nearly twice as broad. Hind legs with patella and tibia about equal, the metatarsus rather shorter, and the tarsus only one-half as long as the metatarsus. The third joint of the palpus has a small tooth on outer side at tip, the fourth joint is concave within, the inner tip pointed and recurved; the thumb is situated in the concavity of the fourth joint; it is about two and one-half times as long as broad, and bears about one dozen bristles near its tip, most of them longer than the joint. Length, 1 mm.

From Salt Lake City, Utah, August 2, swept from alfalfa (Ainslie).

Tenuipalpus cardinalis, new species.

Color, bright red. Body about two and one-half times longer than broad, tapering behind; cephalothorax occupying about one-third of the length; a transverse groove near base of abdomen not reaching across. A pair of long frontal bristles, one each side above second coxæ at the anterior

corner of the cephalothorax, another a short distance behind this, one on the humerus, three each side behind, the first the longest, and one each side at tip, and near this is a short clavate pair. Legs with wrinkled edges; leg I about one-half the length of the body, leg IV scarcely longer than width of the body. Length 0.35 mm.

From Phoenix, Arizona, on bark of ash tree (Morrill). It is similar in appearance to *T. cuneatus*, but distinct by the large bristles.

Tenuipalpus inornatus, new species.

Yellowish. Body about twice as long as broad, very broad in front, the sides of the cephalothorax nearly parallel, abdomen tapering to the rounded tip; above with two or three transverse lines toward tip; no bristles noticeable on body; the cephalothorax nearly twice as broad as long, anterior margin slightly evenly convex; mandibles large and prominent, palpi short, last joint slender; legs I and II rather stout, sides crenulated, as long as width of the cephalothorax, not crowded up to the beak; hind legs more slender; leg IV reaching to tip of the abdomen; all legs without apparent hairs, except short ones at tips of the tarsi. Length, 0.3 mm.

From Batesburg, South Carolina, on golden-rod (H. F. Wilson).

Tetranychus longipes, new species.

Yellowish. Body about one and a half times longer than broad; cephalothorax fully twice as broad behind as long; a pair of short bristles in front, and four rows of short bristles on dorsum of the abdomen, none as long as the patella of the hind legs. Mandibular plate rather broad, tip rounded, not emarginate; palpi stout, the thumb shows two fingers, subequal in size, and a hair at each corner. The legs are long, slender, and with few stiff bristles; leg I is longer than the others, plainly longer than the body; leg IV is a little longer than the body, the femora very slightly thickened on the basal part; claws two, simple. Each side of the mandibular plate is a slender curved process, not visible in all specimens. Length, 0.5 mm.

From Springer, New Mexico, September 29, swept from *Agropyron* (a grass) (C. N. Ainslie). Also from Holtville, California, March 25 (Wildermuth).

Evidently related to *T. latus* Can. and Fanz., which occurs on box trees in Italy; however, leg I is still longer than in that species.

Tetranychus pratensis, new species.

Pale greenish. Body nearly or quite twice as long as broad, rather more elongate than usual, broadly rounded behind; without humps above, with the usual four rows of rather long bristles, those above longer than the hind tarsi. Legs short, none as long as the body, with many long hairs, some extremely long, being as long as two joints together. Man-

dibular plate elongate, truncate or broadly rounded in front, but not emarginate. Palpi with short stout thumb, with one stout finger, and a hair at one corner. Tarsi end in two long, simple, and but little curved claws. Length, 0.4 mm.

From Pullman, Washington, on timothy, in June (Hyslop, coll.).

Macrocheles canadensis, new species.

Female.—Pale yellowish, scutum rather darker; dorsum of body with four rows of short, simple, curved spine-like bristles, one at humerus, and about six along the hind margin. Legs quite slender, with long simple bristles; leg I with the last joint a trifle longer than the preceding joint, the antepenultimate joint still shorter; palpi with the last joint bristly all over, other joints with few bristles only near tip, the penultimate joint longer than either the preceding or the apical joint. Second pair of legs about twice as heavy as the others; hind tarsi very long and slender. Ventro-anal plate very broad, broadest much before the middle, truncate in front, somewhat pentagonal in shape. Length, 1.8 mm.

Three from a guinea pig, Ottawa, Canada; sent by Dr. Hewitt.

Histiogaster xylophaga, new species.

Body elongate; in general similar to *H. corticalis*, but differing at once in the absence of long bristles on tarsi and in the smaller bristles on cephalothorax and abdomen. Tarsus I with numerous spines; tarsus II with a large spine on outer side near tip and on inner side with a bristle; tarsus III and IV with only two or three spines. Hind legs much smaller than fore pairs and widely separated from them; two pairs of fine hairs near tip of the body, and two pairs on cephalothorax, the anterior pair on the front margin; mandibles very large and stout. Length, 0.4 mm.

Burrowing in stems (decayed) of alfalfa at Phoenix, Arizona; sent by Dr. A. W. Morrill. The genus *Histiogaster* is distinguished from *Monieziella* by the presence of spines on the tarsi; moreover, all *Histiogasters* are wood-feeders, while *Monieziella* feeds on dead insects or on scale insects.

Tarsonemus waitei, new species.

Female.—Body (including beak) not twice as long as broad, sides but slightly curved, narrowed behind coxæ III, where there are several long spines on each side, behind this the body is broadly rounded, and below slightly concave, being much thicker at hind coxæ than elsewhere. The beak is very large and prominent, fully one-fourth as long as the body. Legs I and II are very short and stout, leg III slender, leg IV extremely tenuous and ending in two long bristles; all legs have only a very few short, inconspicuous hairs; a long bristle above on each humerus.

Male.—The body is as long as in the female; the leg III enlarged, while the fourth pair are extremely large and long, and end in a very long claw.

Length, 0.2 mm.

